

Abstract of Disclosure

A system for treating a fluid comprising a treatment chamber; a light source for emitting light, such that at least a portion of the light travels within the treatment chamber; and a treatment area within the treatment chamber; wherein a flow profile of the fluid in the treatment area matches the fluence profile of the light that travels within the treatment area. An apparatus for providing a substantially uniform light treatment of a flowing fluid by providing a light source or sources and establishing (or controlling) the flow such that the combination of light intensity and flow velocity provides substantially uniform treatment (i.e. the faster moving fluid streams are treated at higher intensity and the slower moving fluid streams are treated at lower intensity).

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